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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.   | CONFIRMATION NO. |
|---|-------------|----------------------|-----------------------|------------------|
| 10/022,328  | 12/14/2001  | Richard L. Underhill | KCC 4774; KC #15,646B | 4944             |
| 321   | 7590        | 08/11/2004           | EXAMINER              |                  |
| SENNIGER POWERS LEAVITT AND ROEDEL<br>ONE METROPOLITAN SQUARE<br>16TH FLOOR<br>ST LOUIS, MO 63102 |             |                      | TRUONG, LINH T        |                  |
|   |             |                      | ART UNIT              | PAPER NUMBER     |
|   |             |                      | 3761                  |                  |

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/022,328

Applicant(s)

UNDERHILL ET AL.

Examiner

Linh Truong

Art Unit

3761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on the Election of 28 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 20-36, 38-41 and 45-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 48 is/are allowed.
- 6) ☒ Claim(s) 20, 21, 23-36, 38, 40, 41, 45, 49, 51, 52 and 54 is/are rejected.
- 7) ☒ Claim(s) 22, 39, 46-47, 50 and 53 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 02, 03 and 2 04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of the species restriction in the reply filed on 3 May 2004 is acknowledged. The traversal is on the ground(s) that species 2 is drawn to figs. 4 and 5 (and not just 4). This is not found persuasive because, although the Applicant is accurate, Applicant's traversal still does not affect the species restriction.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Objections***

Claim 33 is objected to because of the following informalities: "3 mil" should be changed to 3mm. Appropriate correction is suggested.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 20, 21, 23, 34, 35, 36, 38, 40-41, 51, and 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Jackson 2,043,325.

For claims 20, 23, 38, 51, and 54, Jackson teaches an absorbent diaper comprising:

a liquid permeable liner 22; an outer cover 26, an absorbent body 28 between the liner and the outer cover, a surge layer 30, and a permeable flow control layer 29 composed of fiberized pulp (this is considered to be non-woven, p.2, col.2, lines 10-19) between the liner and the absorbent body for retarding the flow of liquid body waste penetrating the liner toward the absorbent body (fig. 3).

For claims 21 and 40, the flow control layer 29 is between the surge layer 30 and the absorbent body for retarding the flow of liquid body waste released from the surge layer toward the absorbent body.

For claims 34 and 35, the flow control layer 29 have substantially the same length and width as the surge layer.

As to claims 36 and 41, the permeability of the surge layer 30 is inherently higher than the permeability of the flow control layer 29 because the material (e.g. hydrophobic fibers and plastic films) of the flow control layer slows down the flow of liquid to the layer underneath.

Claims 20, 21, 23, 29, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Becker et al. '4,657,538.

For claims 20, 23, and 29, Jackson teaches an absorbent article comprising:

a liquid permeable liner 18; an outer cover 20, an absorbent body 30 between the liner and the outer cover, a surge layer 28, and a permeable flow control layer 26 comprising of a meltblown, hydrophobic, nonwoven, and permeable material (col. 5, lines 5-26) between the liner and the absorbent body for retarding the flow of liquid body waste penetrating the liner toward the absorbent body (fig. 4 and col. 4, lines 20-23).

For claim 21, the flow control layer 26 is between the surge layer 28 and the absorbent body 30 for retarding the flow of liquid body waste released from the surge layer toward the absorbent body.

As to claim 36, the permeability of the surge layer 30 is inherently higher than the permeability of the flow control layer 29 because the material (e.g. hydrophobic fibers and plastic films) of the flow control layer slows down the flow of liquid to the layer underneath.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim 45 is rejected under 35 U.S.C. 102(e) as being anticipated by Roe et al. '6,627,786 (IDS).

For claim 45, Roe teaches a method of facilitating flow back of fluids through the liner of a disposable absorbent article to provide a prolonged feel of wetness to the wearer, the disposable article comprises: a permeable liner 24, an outer cover 26, a surge layer 54, and an absorbent body 28 between the liner and outer cover, the method comprising:

- directing liquid waste from the liner to the surge layer;
- directing the liquid waste from the surge layer to the absorption body; and
- retarding the flow of liquid waste released from the surge layer to the absorbent body to maintain unabsorbed liquid waste within the surge layer for a prolonged duration, thereby facilitating the flow back of liquid waste through the liner to provide a prolonged feeling of wetness to the wearer (fig. 5b and col. 2, lines 7-17).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 24-28, 31-33, 49, and 51-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson 2,043,325 in view of Sherrod et al. 2002/0143316.

For claims 24, 49, and 51-52, Jackson does not expressly teach a flow control layer comprised of a liquid impermeable film having apertures. Apertured films are well known in the art for allowing limited flow of liquids to the absorbent layer below. Sherrod teaches an absorbent article with a fluid transfer delay layer 60 comprised of a plastic apertured film (non-woven material), wherein the plastic can be polyethylene or polypropylene (0029 and 0030). Since the liquid impermeable film also have apertures, the flow control layer permits the flow of liquid toward the absorbent body directly downwards and around the peripheral edges of the flow control layer. Therefore, it is obvious to one with ordinary skill in the art to at the time the invention was made to provide the flow control layer of Jackson with an apertured plastic film for limited flow of fluids to the layer (s) underneath for a more effective absorbent article.

As to claims 25-26, Jackson and Sherrod discloses the claimed invention except for the specific range of sizes of the apertures. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have apertures in the range of about 1mm to 10mm, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105USPQ 233.

As to claim 27, Jackson and Sherrod discloses the claimed invention except for the film's aperture density of less than or equal to 14 apertures per square inch. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have film's aperture density of less than or equal to 14 apertures per square inch, since it has been held that where the general conditions of a claim are

disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105USPQ 233.

As to claim 28, Jackson and Sherrod discloses the claimed invention except for the film having a thickness of less than or equal to about .003 inches. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a film having a thickness of less than or equal to about .003 inches, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105USPQ 233.

As to claims 31-32, Jackson does not teach a flow control layer comprised of an impermeable film layer. Impermeable film layers are common in the art for retarding and directing the flow of fluids to another layer. Sherrod teaches an absorbent article with a fluid transfer delay layer 60 comprised of a an impermeable film, wherein the impermeable film can be polyethylene or polypropylene (0029 and 0030) and this impermeable film forces the liquid to travel laterally or longitudinally to the peripheral edges of the flow delay layer (0031 and 0033). Therefore, it is obvious to one with ordinary skill in the art to at the time the invention was made to provide the flow control layer of Jackson with a liquid impermeable film for a controlled flow of fluids to the layer (s) underneath for a more effective spread of the fluid.

As to claim 33, Jackson and Sherrod discloses the claimed invention except for the film having a thickness of less than or equal to about 3mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to



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have a film having a thickness of less than or equal to about 3mm, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105USPQ 233.

### ***Allowable Subject Matter***

Claims 22, 39, 46-47, 50, and 53 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 48 is allowable.

The prior art does not teach or render obvious a flow control layer between the liner and the surge layer or the method of delaying the flow of liquids toward the surge layer.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. patent 6,613,028 B1 is drawn to an absorbent article with a transfer delay layer comprised of an apertured plastic film. U.S. Patent 5,728,084 is drawn to an absorbent article with an intermediate flow control layer 10 that prevents loss of liquids around the side edges.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh Truong whose telephone number is 703-605-4974. The examiner can normally be reached on Mondays to Fridays from 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on 703-305-1025. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Linh Truong

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L.T.

  
JOHN CALVERT  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700